

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office	ATTORNEY DOCKET NO. 4176-101	SERIAL NO. 09/812,382
INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)		
OIPF JUL 02 2001 PATENT & TRADEMARK OFFICE		
APPLICANT CHILKOTI, Ashutosh		GROUP
FILING DATE March 20, 2001		

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
dw	AA	5,028,419	7/2/91	Pigiet	424	71	
dw	AB	5,646,016	7/8/97	McCoy, et al.	435	69.7	
dw	AC	5,792,506	8/11/98	Buchanan, et al.	426	656	
dw	AD	5,919,657	7/6/99	Hillman, et al.	435	69.1	
dw	AE	5,952,034	9/14/99	Buchanan, et al.	426	656	
dw	AF	5,985,261	11/16/99	White, et al.	424	85.1	
dw	AG	6,013,857	1/11/00	Deboer, et al.	800	15	

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		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)	
dw	AH Urry, D.W., Entropic Elastic Processes in Protein Mechanisms. I. Elastic Structure Due to an Inverse Temperature Transition and Elasticity Due to Internal Chain Dynamics, <i>Journal of Protein Chemistry</i> , Vol. 7, No. 1, pp. 1-34 (1988)
dw	AI Urry, D.W., Free Energy Transduction in Polypeptides and Proteins Based on Inverse Temperature Transitions, <i>Prog. Biophys. Molec. Biol.</i> , Vol. 57, pp. 23-57, (1992)
dw	AJ Urry, D.W., Physical Chemistry of Biological Free Energy Transduction as Demonstrated by Elastic Protein-Based Polymers, <i>J. Phys. Chem. B</i> , Vol. 101, No. 51, pp. 11007-11028, (1997)
dw	AK McPherson, et al., Product Purification by Reversible Phase Transition Following <i>Escherichia coli</i> Expression of Genes Encoding up to 251 Repeats of the Elastomeric Pentapeptide GVGVP, <i>Protein Expression and Purification</i> , 7, pp. 51-57, (1996)
dw	AL Hoffman, A.S., Applications of Thermally Reversible Polymers and Hydrogels in Therapeutics and Diagnostics, <i>Journal of Controlled Release</i> , 6, pp. 297-305, (1987)
dw	AM Chen, J.P., et al., Polymer-protein conjugates, II. Affinity precipitation separation of human immunoglobulin by a poly(<i>N</i> -isopropylacrylamide)-protein A conjugate, <i>Biomaterials</i> , 11:631-634 (1990)
dw	AN Chilkoti, A., et al., Site-Specific Conjugation of a Temperature-Sensitive Polymer to a Genetically-Engineered Protein, <i>Bioconjugate Chemistry</i> , Vol. 5, pp. 504-507, (1994)
dw	AO Nilsson, B., et al., Fusion proteins in biotechnology and structural biology, <i>Curr. Opin. Struct. Biol.</i> , 2:569-575 (1992)
dw	AP Uhlen, M. and Moks, Tomas, Gene Fusions for Purpose of Expression: An Introduction, <i>Methods of Enzymology</i> , Vol. 185, pp. 129-143 (1990)
dw	AQ Maina, C.V., et al., An <i>Escherichia coli</i> vector to express and purify foreign proteins by fusion to and separation from maltose-binding protein, <i>Gene</i> , 74:365-373 (1988)

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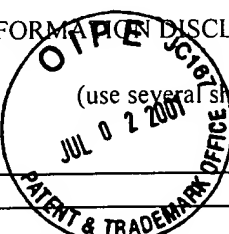
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AR	Smith, D.B., et al., Single-step purification of polypeptides expressed in <i>Escherichia coli</i> as fusions with glutathione S-transferase, <i>Gene</i> , 67:31-40 (1988)						
AS	Tsao, Kwe-Lan, et al., A versatile plasmid expression vector for the production of biotinylated proteins by site-specific, enzymatic modification in <i>Escherichia coli</i> , <i>Gene</i> , 169:59-64 (1996)						
AT	Smith, P.A., et al., A plasmid expression system for quantitative <i>in vivo</i> biotinylation of thioredoxin fusion proteins in <i>Escherichia coli</i> , <i>Nucleic Acids Research</i> , Vol. 26, No. 6 (1998)						
AU	LaVallie, E.R., et al., A Thioredoxin Gene Fusion Expression System That Circumvents Inclusion Body Formation in the <i>E. coli</i> Cytoplasm, <i>Bio/Technology</i> , Vol. 11, pp. 187-193 (1993)						
AV	Ong, E. et al., The cellulose-binding domains of cellulases: tools for biotechnology, <i>Trends. Biotechnol.</i> , 7:239-243 (1989)						
AW	Smith, Michele C. et al., Chelating Peptide-immobilized Metal Ion Affinity Chromatography, <i>The Journal of Biological Chemistry</i> , Vol. 263, No. 15, pp. 7211-7215, (1988)						
AX	Kim, Jin-Soo et al., Ribonuclease S-peptide as a carrier in fusion proteins, <i>Protein Science</i> , 2:348-356, (1993)						
AY	Su, Xinzhuang, et al., production of Recombinant Porcine Tumor Necrosis Factor Alpha in a Novel <i>E. coli</i> Expression System, <i>Biotechniques</i> , 13:756-762 (1992)						
AZ	Nilsson, J. et al., Affinity Fusion Strategies for Detection, Purification, and Immobilization of Recombinant Proteins, <i>Protein Expression and Purification</i> , 11:1-16 (1997)						
BA	Hauck, M. L. et al., Local Hyperthermia Improves Uptake of a Chimeric Monoclonal Antibody in a Subcutaneous Xenograft Model, <i>Clin. Cancer Res.</i> , 3:63-70 (1997)						
BB	Cope, D.A. et al., Enhanced Delivery of a Monoclonal Antibody F(ab') ₂ Fragment to Subcutaneous Human Glioma Xenografts Using Local Hyperthermia, <i>Cancer Res.</i> , 50:1803-1809, (1990)						
BC	Vertesy, L. et al., Tendamistat (HOE 467), a tight-binding α -amylase inhibitor from <i>Streptomyces tendae</i> 4158, <i>Eur. J. Biochem.</i> , 141:505-512, (1984)						
BD	Urry, D.W., et al., Temperature of Polypeptide Inverse Temperature Transition Depends on Mean Residue Hydrophobicity, <i>J. Am. Chem. Soc.</i> , 113: 4346-4348, (1991)						
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EXAMINER <i>M. Valiche</i>					DATE CONSIDERED 11/13/02		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

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	BE	Urry, D.W., et al., Phase-structure Transitions of the Elastin Polypentapeptide-water system within the framework of composition-temperature studies, <i>Biopolymers</i> , 24:2345-2346, (1985)					
	BF	Porath, J. et al., Immobilized metal ion affinity chromatography, <i>Prot. Expr. Purif.</i> , 3:262-282 (1992)					
	BG	Homgren, A., Thioredoxin, <i>Annu. Rev. Biochem.</i> , 54:237-271 (1985)					
	BH	Smith, P.K., et al., Measurement of protein using bicinchonic acid, <i>Anal. Biochem.</i> , 150:76-85 (1986)					
	BI	Holmgren, A. et al., Enzymatic reduction-oxidation of protein disulfides by thioredoxin, <i>Methods Enzymol.</i> , 107:295-300 (1984)					
	BJ	Meyer, D. and Chilkoti, Purification of Recombinant Proteins by Fusion with Thermally Responsive Polypeptides, <i>Nat. Biotechnol.</i> , 17:1112-1115 (1999)					
	BK	McPherson, D., et al., Production and purification of a recombinant elastomeric polypeptide, G-(VPGVG) ₁₉ -VPGV from <i>Eschericia coli</i> , <i>Biotechnol. Prog.</i> , 8:347-352 (1992)					
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EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<i>dw</i>	BL	6,328,996	Dec 11, 2001	Urry	424	499	
<i>dw</i>	BM	6,004,782	Dec 21, 1999	Daniell, et al.	435	71.2	
<i>dw</i>	BN	5,972,406	Oct 26, 1999	Urry, et al.	426	549	

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<i>dw</i>	BO	WO96/32406	17 Oct 1996	PCT		X	

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<i>dw</i>	BQ	Kobatake, Eiry, et al., "Design and Gene Engineering Synthesis of an Extremely Thermostable Protein with Biological Activity," Biomacromolecules 2000, 1: 382-386
<i>dw</i>	BR	Meyer, Dan E., et al., "Protein Purification by Fusion with an Environmentally Responsive Elastin-Like Polypeptide: Effect of Polypeptide Length on the Purification of Thioredoxin," Biotechnol. Prog. 2001, 17 (4): 720-728
<i>dw</i>	BS	Meyer, Dan E., et al. "Targeting a Genetically Engineered Elastin-like Polypeptide to Solid Tumors by Local Hypothermia," Cancer Res 2001 Feb 15; 61(4): 1548-54
<i>dw</i>	BT	Meyer, Dan E., et al. "Drug targeting using thermally responsive polymers and local hyperthermia," Journal of Controlled Release 2001 Jul 6; 74: 213-24

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EXAMINER <i>M. Salick</i>	DATE CONSIDERED 11/13/02
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<i>dw</i>	BU	6,355,776 B1	Mar 12, 2002	Ferrari et al.	530	350	
<i>dw</i>	BV	6,184,348 B1	Feb 6, 2001	Ferrari et al.	530	350	
<i>dw</i>	BW	6,140,072	Oct 31, 2000	Ferrari et al.	435	69.1	
<i>dw</i>	BX	6,018,030	Jan 25, 2002	Ferrari et al.	530	353	
<i>dw</i>	BY	5,830,713	Nov 3, 1998	Ferrari et al.	435	91.1	
<i>dw</i>	BZ	5,773,249	Jun 30, 1998	Cappello et al.	435	69.1	
<i>dw</i>	CA	5,770,697	Jun 23, 1998	Ferrari et al.	530	353	
<i>dw</i>	CB	5,641,648	Jun 24, 1997	Ferrari et al.	435	69.1	
<i>dw</i>	CC	5,514,581	May 7, 1996	Ferrari et al.	435	252.3	
<i>dw</i>	CD	5,496,712	Mar 5, 1996	Cappello et al.	435	69.1	
<i>dw</i>	CE	5,243,038	Sep 7, 1993	Ferrari et al.	536	23.1	
<i>dw</i>	CF	5,235,041	Aug 10, 1993	Cappello et al.	530	353	
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